



PATENT ABSTRACTS OF JAPAN

(11) Publication number: **55086805 A**(43) Date of publication of application: **01.07.1980**(51) Int. Cl **C08F210/16****C08F 4/64**(21) Application number: **53159167**(22) Date of filing: **26.12.1978**(71) Applicant: **mitsui petrochem ind ltd**(72) Inventor: **MORITA YOSHINORI****TOYODA AKINORI****KASHIWA NORIO****(54) PREPARATION OF ETHYLENE COPOLYMER****(57) Abstract:**

PURPOSE: To obtain a low-density ethylene copolymer, by copolymerizing preliminarily ethylene with an α -olefin using a catalyst comprising a titanium catalyst component with a specific specification supported by a magnesium compound and an aluminum compound, followed by polymerization.

CONSTITUTION: In the preparation of an ethylene copolymer with a density of $0.900\text{W}0.945\text{g/cm}^2$ by copolymerizing ethylene with a small ratio of an α -olefin having 3 or more C at a temperature not higher

than 100°C by using a catalyst comprising A) a titanium catalyst component supported by a magnesium compound, consisting of A-1) a substance having a specific surface area not less than $40\text{m}^2/\text{g}$, an average particle diameter of $5\text{W}200\mu$, and a standard deviation of particle size distribution not more than 2.1 and (A-2) a substance having a specific surface area not less than $80\text{m}^2/\text{g}$ and an organic acid ester and B) an organoaluminum compound, $0.01\text{W}50\text{g}$ of ethylene per g of the titanium catalyst component is copolymerized preliminarily with a $3\leq\text{C}$ α -olefin and then polymerized to give the copolymer. The rate of the preliminary copolymerization is not more than one-fifth of that of the polymerization.

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